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REMARKS

DRAWING OBJECTIONS

The drawings were objected to as not showing all elements of the claims.

New figures have been added to the background showing an electromagnetic reflector (claim 16), electromagnetic absorber (claim 17), and the ground plane of an antenna (claims 18 and 31). These figures are referred to and discussed in the background, as conventional versions of such devices are well known in the prior art. Hence, no new matter is introduced.

CLAIM REJECTIONS

Claims 16 and 17 stand rejected under 35 USC 112 as duplicative. Claim 17 has been amended to refer to an electromagnetic absorber. Support for this amendment is found at page 18, lines 9 – 10.

Claims 1-31 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,525,695 to McKinzie, III (hereinafter "McKinzie").

In a recent discussion with the Examiner (February 13, 2007), the Examiner suggested further definition of the term "switch". In regard to this suggestion, claims 2 and 9 have been amended to further describe switch selection, and claim 19 now describes switches including transistors.

McKinzie discloses an artificial magnetic conductor (AMC) having a frequency selective surface (FSS) formed from conducting patches. The patches include a first group held at a reference potential using vias (thin electrical conductors) passing through the dielectric layer (see col. 5, lines 41 – 54). A first group of patches is labeled "ground nodes" on the front page figure (Figure 6). The second group of patches, called "bias nodes", is not connected to the vias. Voltage variable capacitors, such as varactor diodes, interconnect the two groups of patches (col. 6, lines 16 – 23), and the potential of the bias nodes, interconnected by resistors (col. 5, lines 61 – col. 6, line 4), can be chosen to obtain a desired capacitance and hence FSS resonance frequency.

Regarding claims 1 – 8, claim 1 includes reference to "… a plurality of switches, each switch electrically interconnecting at least two of the plurality of conducting patches when the switch is selected, wherein a first ensemble of switches is selectable so as to provide a first configuration of

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electrically interconnected conducting patches, and a second ensemble of switches is selectable so as to provide a second configuration of electrically interconnected conducting patches ...". The AMC of McKinzie includes tunable capacitors and resistors, but does not include switches. Further, there is no ability to select ensembles of switches to obtain different configurations of interconnected conducting patches. Hence, claims 1 – 8 are allowable over McKinzie.

Regarding claim 2, this claim has been amended so as to describe each switch being equivalent to a closed circuit when the switch is selected, and to an open circuit when not selected, switches being selected using electrical signals applied to the switches. Support for this amendment is found at p. 5, lines 13 – 16, page 9, lines 21 – 24, page 10, lines 1-3, and page 18, lines 26 -27. The limitation of the electrical signals not being applied to the conducting patches excludes biasing of a diode linking two adjacent patches.

Regarding claims 9 – 18, claim 9 has been amended to refer to a plurality of switches, the electrical interconnection configuration of the patches comprising a plurality of selected switches. Support for this amendment is found at page 5, lines 2 – 8, and the original claim 1. Claim 9 has further been amended along the lines of claim 2, see the previous paragraph.

As argued above in relation to claim 1, McKinzie does not describe interconnection of patches by selectable switches, but only through tunable capacitors and resistors. McKinzie also fails to describe changing the electrical interconnection configuration through selection of switches, but only the tuning of capacitive elements. McKinzie fails to disclose selection of switches using electrical signals applied to the switches.

Regarding claims 19 - 25, claim 19 has been amended to refer to an electrical interconnection configuration comprising electrical switches, and reconfigurable through selection of one or more of the electrical switches so as to change a resonance frequency of the reconfigurable AMC. Claim 19 has been further amended to refer to each electrical switch comprising a transistor. Support for these amendments is found in as-filed claims 20 and 21 (now both canceled), also page 9, lines 25 -26. Claim 22 is also canceled. Claim 24 is amended to describe electrical signals being applied to the transistors (see page 10, lines 1-3).

Hence, claims 19 and 23 – 25 are allowable over McKinzie.

Regarding claims 26 – 31, claim 26 was originally a dependent claim. Claim 26 has been

amended to depend from claim 19, and is allowable for the reasons given above in relation to claim 19. Claims 28 – 30 are canceled, and claim 31 is amended to depend from claim 26. Hence, claims 26, 27, and 31 are allowable over McKinzie.

Based upon the foregoing amendments and comments, Applicant believes this case is in condition for allowance. Questions regarding this application may be directed to the undersigned attorney by telephone, facsimile or electronic mail.

Respectfully submitted,

By: _____

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